



Mahatma Education Society's PILLAI COLLEGE OF ENGINEERING, NEW PANVEL

Dr. K. M. Vasudevan Pillai Campus, New Panvel

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Pillai

DEPARTMENT OF APPLIED MATHEMATICS, APPLIED SCIENCE AND HUMANITIES

KALEIDOSCOPE A MULTIFACETED VISION



ACTIVITY BASED LEARNING A NEW TREND AT PILLAI ENGINEERING - MATHEMAGIC 2017

Mathematics which is usually said to be difficult for all students at any level found an innovative way at Pillai College of Engineering. Mathematical tool Scilab was used to solve innovative problems in real life problems. The solutions on Scilab were presented by the First Year Students with interest. Mathematics quiz "MATHEMAGIC 2017" was conducted for First Year Students by faculty members of Pillai College of Engineering.

Mathematics Quiz attracted as many as 1000 students who appeared for the elimination round. The elimination round was the first part which was successfully conducted on 19th August 2017. Elimination round was an objective written examination with negative marking. Twelve students were selected from this round for second part of the quiz. The final quiz was conducted on September 2017 in the Auditorium of Pillai College of Engineering. The

occasion was graced by Chairman and CEO Dr. K. M Vasudevan Pillai, who guided students to the importance of Mathematics in the career and highlighted that success in Mathematics is a result of understanding and practice. Principal Dr. R. I. K. Moorthy interacted with students and drew a good comparison of mathematical techniques used from 1950 to 2017. Academic Coordinator Dr. Arun S. Pillai highlighted the current changes in the education system and put forth the idea of organizing such activities which encompasses all students' communities and challenges the potential of a student.

Dr. Sachin Wani, Head of the Department of Mathematics welcomed the gathering and appreciated the students for arranging all the events in Mathematics in a prompt and effective

manner. Four teams De-Moivre, Newton, Leibnitz and Carl Gauss were selected to participate in 3 rounds. Round 1 was conducted by Prof. Archana Ingole and Prof. Suvarna Gaikwad, Round 2 - Master Mind round conducted by Dr. Anshu Murarka and Prof. Lilly Pradhan, Round 3 - Fastest finger round was conducted by Prof. Kamini Chaudhari and Prof. Kuberal.

Krishi Narel, Prathmesh Andalkar and Amol Adarkar from Carl Gauss group won the First Prize. Nikhil Tiwari, Romax AK Rajeev Sushrut Kuchik from De-Moivre group won the Second Prize.

Certificates and Cash prize was awarded to winners by Dr. Arun Pillai and Dr. Goyal, Dean R & D.

Edited by:

Leena Potdar

Darshana Pachkawade

CLEAN ENVIRONMENT -THE NEW MISSION OF BUDDING ENGINEERS AT PILLAI COLLEGE OF ENGINEERING (PCE)



Embarked upon its mission of PCE “ *To develop professional engineers with respect for the environment, and make them responsible citizens in technological development both from an Indian and global perspective*”, PCE Nature Club organized a cleanliness drive and natak at Panvel Railway Station to create awareness of a clean environment. The students had interactions with Padmashri Dr. Sharad Kale, Dr. Sharad Chaphekar who inspired the students to think beyond classroom and take active interest in various environmental issues.

More than 300 engineering students and teachers participated in various activities on “SAVE THE ENVIRONMENT” in Panvel railway station on 23rd September 2017. This club had organized many

activities for the students for the last two years. This time the young environmentalists decided to give some inspiration to the pedestrians, hawkers and commuters through street play. The students acted in the play inspired by modern day environmental problems like pollution, water conservation, deforestation, climate change, natural disasters etc and also they stressed on remedies. Panvel regular commuter Mr. Sasikumar said “Such initiatives help the regular commuters and railway authorities to make some conscious efforts for the sake of environment and cleanliness in Railway Station”

Academic Coordinator, Dr. Arun Pillai commented, “Such activities beyond academics, creates a sense of

responsibility towards the environment among the young engineers at Pillai College of Engineering. The spirit exhibited by the students and my colleagues is tremendous”

Students volunteers Tejas Kadam and Akash Gupta said “We feel fortunate to be a part of this great effort which spreads such a relevant message. It is very important that the people to be aware of the environmental issues. Everyone can do some actions to save environment and we clearly conveyed this message through our street play.”

“PCE Nature club looks forward to organize such activities for attainment of Swach Bharat and Sundar Vatavaran” said Prof. Soumya the event coordinator.

AARAMBH -FRESHERS' DAY AND FELICITATION PROGRAMME

Aarambh is a beginning of new life. Pillai college of Engineering celebrates this new beginning of budding engineers with Freshers' party along with felicitation of the academic toppers.

Our Toppers- Academic year- 2016-17

1. Sawant Manasi Pradeep
2. Shetty Vaishanvi Sanjeeva
3. Shelar Aashay Avinash

Academic Year 2017-18 (Sem-I)

1. Ghatugade Rucha Vikas
2. Pimparkar Rohini Subhash
3. Shinde Sadashiv Ashok

The Felicitation function was followed by the event Mr. Fresher and Miss Fresher .The event was divided into various rounds and well received and appreciated by all.

EXPRESSION 2017- ONE DAY INTRA-COLLEGIATE COMPETITION



Pillai Group of Institutions hosted One Day Intra-Collegiate Competition for students – Expression 2017 in association with Women Development Cell, University of Mumbai and Majlis, Legal Centre for Women at Dr. K.M. Vasudevan Pillai Campus, New Panvel on 8th December, 2017 from 10:30 a.m. to 3:00 p.m. Students from Pillai College of Arts, Commerce & Science, Pillai College of Architecture, Pillai Institute of

Management Studies & Research and Pillai College of Engineering participated in the event. The event started with welcome speech by the Secretary Dr. Daphne Pillai, followed by competition which included two categories of events –verbal and non-verbal. Ms. Snehal Patil from Pillai Institute of Management Studies & Research was the winner and Ms. Proгна Bannerjee from Pillai Institute of Management Studies & Research was the runner- up in the verbal category. Mr. Abhijit Prakashan from Pillai College of Engineering and Ms. Vrinda from Pillai College of Arts, Commerce & Science were the winner and runner-up in the non-verbal category. The programme ended with panel discussion by Majlis team members with the students.

ALEGRIA THE FESTIVAL OF JOY



The most awaited Festival of the year arrived with a bang and concluded on a happy note. The five day festival from 6 February to 10 February 2018 saw a number of students coming across the state, participating in more than 100 events and competitions which include treasure hunt, sports, technical and literary events ,

mind games and fashion shows. The festival had theme “ Mumbai - The City of Dreams” . The campus was graced by the presence of popular guest celebrities Alesia Raut, Melvin Louis, Saqib Saleem, Divya Agarwal, Biswa, Murali Kumar, Evelyn Sharma, Sahil Khan, Dhanraj Pillai, and Guru Randhawa.

CELEBRATION OF INTERNATIONAL WOMEN'S DAY



Mahatma Education Society's Pillai Group of Institutions in association with The Hindu newspaper celebrated International Women's Day on 7th of March 2018 at Dr. K M Vasudevan Pillai Campus. To celebrate this day, the Women's Development Cell of the four institutes, Pillai Institute of Management Studies and Research, Pillai College of Arts, Commerce and Science, Pillai College of Engineering and Pillai College of Architecture, organized a seminar on the theme, Beautiful Inside - Out. The seminar began with a session on “Self acceptance and loving yourself” by Dr. Shubhi Lal Agarwal followed by a Self Defence workshop by world famous martial art expert Mr. Ganesh Padyachi. The seminar was well received and appreciated by the 400 students who attended the same.

VOCABULARY TREASURE HUNT-GAME BASED APPROACH

The Humanities Department organized an activity for the first year students to enhance their vocabulary. In order to make it interesting, challenging as well as competitive, the element of game was used in this activity. The game was designed in the form of **Treasure Hunt**. Here the students were expected to **hunt for the appropriate word and make a meaningful sentence**, and not the place. The students formed groups of five each. There were two rounds of the game. The first round was the **elimination round** where the students underwent a written test



comprising vocabulary and grammar questions. Top 9 groups qualified for the second round which was scheduled on March 10, 2018. The event was judged by Dr. Madhumita Chatterjee, Head,

Department of Computer Engineering, PCE, Dr. Celina Joy and Dr. Betty Sibil, PIMSAR, New Panvel. The first prize won by a group from division A consisting Saurabh Wadkar,

Midhun VM, Vedant M.K. Rahul Warriar, Omkar Nayak. The Second prize was awarded to division I students- Garima Singh, Rashmi Singh, Sakshi kadam, Mohammed Sameel and Nehal. The Third prize won by division F students -Rahul Nair, Sarar Promod, Prateek Mata, Shivendra Sharma, Komal Dhar. All students of the 9 groups were given certificates of participation to motivate and instill in them a feeling of competition and fun. Cash prizes were awarded to the three winning groups of Rs 2500/-, Rs 1500/-, and Rs 750/- respectively. This activity was designed to help students learn by enjoying and playing. Vocabulary is a key element in the construction of sentences and presenting one's ideas with clarity and confidence. It is with this idea the game was introduced for the first year students.

EXHIBITION BY FIRST YEAR STUDENTS ON THE OCCASION OF WORLD WATER DAY CELEBRATION



Mahatma Education Society's Pillai College of Engineering, New Panvel (PCE) and Indian Desalination Association (InDA) celebrated "World Water Day" at PCE campus on 24th March, 2018. There was one day seminar on "Integrated Water Management" which consisted of invited talks and presentation of contributory papers both in oral and poster sessions. In all, there were four invited talks and 18 contributory papers. The participants consisted of senior scientists/professors and research scholars from several different institutes such as BARC, IIT-B, D. J. Sanghvi College of Engineering, Bharati Vidyapeeth College of Engineering, SIES - Nerul, Dr. Babasaheb Ambedkar Marathwada

University (Aurangabad), Dr. Babasaheb Ambedkar Technical University (Lonere), Pillai HOC College of Engineering & Technology, Pillai HOC College of Arts, Science and Commerce and Pillai College of Engineering. There were few participants from the industry also. In addition to invitees, there were about 126 participants that included 69 participants from PCE. The seminar consisted of 5 sessions, namely, inaugural function, invited talks, poster presentation and exhibits, oral presentations and valedictory function.

The chief guest Prof. V. G. Gaikar (Vice Chancellor, Dr. Babasaheb Ambedkar Technical University, Lonere), delivered

Inaugural Address. Dr. P. K. Tewari (President, InDA and Dr Ramanna Fellow, BARC) gave introduction about InDA, World Water Day and highlighted the importance of Integrated Water Management in the country. Dr. Sanjeev Katti (Senior Vice President, R & D, Reliance Industries) delivered keynote address and discussed about state of art desalination plants at Jamnagar Refinery. Abstract Book of the seminar and Souvenir of InDA were also unveiled. The second session consisted of following two invited talks:

The seminar ended with the valedictory function, where Dr. R. C. Bindal appreciated the efforts taken by the first year students in making the seminar a success. He mentioned that the event was one of the best organized World Water Day functions and indicated that college is well equipped for organizing major conferences. Dr. P. S. Goyal (Convener) and a team of about 25 faculty members of PCE were involved in organizing the above event. Help and advice at different stages of organization was also provided by the executive members of InDA.

PROJECT BASED LEARNING- ACTIVE EXPLORATION OF REAL WORLD CHALLENGES



Project based learning prepares students for academic, personal and career success and readies young people to rise to the challenges of their lives and the world they will inherit. They demonstrate their knowledge and skills by developing a public product or presentation for a real audience. As a result, students develop deep content knowledge as well as critical thinking, creativity, and communication skills in the context of doing an authentic, meaningful project. Project Based Learning unleashes a contagious, creative energy among students and teachers. Taking into consideration this aspect Department of Applied Mathematics, Applied Science and Humanities, PCE introduced concept of PBL to first year students and organized PBL Demonstration on 13 April 2018. This effort was widely appreciated by students, faculty and parents.

STUDY CAMP

To motivate and help students to prepare for university examination, PCE always walks an extra mile. Department of Applied Mathematics, Applied Science and Humanities organized study camp for first year students from 19 April 2018- 27 April 2018. The faculty prepared question bank for students. The students were divided into different batches and were given different practice set of question papers.

SEMINAR ON OCCASION OF NATIONAL TECHNOLOGY DAY



A seminar was organized by the National Academy of Sciences, India, Mumbai Chapter in association with Pillai College of Engineering, New Panvel on occasion of the National Technology Day on Friday May 11, 2018. The chief guest Padma Vibhushan Dr. R. Chidambaram delivered his keynote lecture on 'Technology is Power'. It was followed by presidential address by chief guest Padmavibhushan Dr. Anil Kakodkar.

Dr. Venkata Raman, Reliance Life sciences, spoke on 'Global Perspective on Developments in Biotechnology and Bio therapeutics'. Dr. Madhumita Chatterjee, Pillai college of Engineering shared her views on 'Cyber Security- Issues and Challenges'. Dr. Manoj Kumar, Reliance Life Sciences spoke on 'Viral safety assurance of Bio pharmaceuticals'

SWACHH BHARAT SUMMER INTERNSHIP



First year Engineering students of PCE participated in Swachh Bharat Summer Internship Competition. A group of eleven F.E. students chose the village Kasalkhand from Riagad district. The inaugural function took place on 19 June 2018. The occasion was graced by the presence of Dr. Sandeep Joshi, Principal, PCE, Dr. Arun Pillai, F.E. coordinator, Dr. Biswajit Panda, Internship coordinator along with F.E. faculty members. A rally was organized to make the villagers aware of cleanliness and hygiene. A short

documentary was played for the school students and villagers highlighting the importance of cleanliness. The internship was scheduled for 100 hours comprising talks, survey, street plays, posters and ground work. The efforts were appreciated by the villagers. The internship provided the F.E. students an opportunity to interact with villagers and learn the responsibility towards society.

FACULTY PUBLICATION AND PROJECTS

Projects:

Project“ Synthesis of Polyimide Films with Low Dielectric Constant” Sanctioned by DST (Department of Science & Technology) for 30 Lakh, March 2018, Dr Deepali Shrivastava.

Completed the project on “ The Effectiveness of game-based learning for the undergraduate students of Engineering” sponsored by ICSSR, New Delhi., Dr Malavika Sharma

BRNS Project: Nano-tube based nanocomposites ultra-filtration membrane for water purification, Dr. Biswajit Panda.

Publication:

Paper Published "Fly ash in India: Generation vis-a-vis Utilization and Global perspective", International Journal of Applied Chemistry, Volume-13, Number 1(2017) pp 29-52, Dr. Surabhi.

Best Paper Award, "Recovery of Unburnt carbon from fly ash of Eastern India (ICASTe-2018) held on 20-21st of April, 2018. Dr. Surabhi.

Paper published in International journal of Superconductivity and Novel Magnetism. Paper titled "Structural and Magnetic properties of Fe doped Mn₂O₃ orthorhombic Bixbyite" . Ravindra Nikam.

Paper Published in International journal of 'Physical Review E ' titled ' Coarsening and persistence in a one-dimensional system of orienting arrowheads : Domain-wall kinetics with $A + B \rightarrow 0$, vol. 95, 012147, 2017. Dr. Mahendra Khandkar.

Published a paper, “Octagonal Tile Rewriting Grammars and Picture Languages”, International Journal of Computer & Mathematical Sciences IJCMS ISSN 2347 – 8527 Volume 6, 9 September, 2. Kuberal S.

Paper on "The Effect of Classroom games on the Development of Syntactic Structures" presented at International conference on "New Trends in English Language Teaching" on 24 August 2017 in

Dubai. The same paper was published in the Journal of Teaching English for Specific and Academic Purposes, Vol 5. No. 4, 2017, pp 687-700. Dr. Malavika Sharma.

Participated and presented a paper on "Comparison of Syntactic maturity in Spoken and Written language using game based learning" at the 6th International Conference on Language, Literature and Culture in Pune. Dr. Malavika Sharma.

Paper Published- (IJRSET) Volume 6, Issue 6, June 2017 “Polyimide-Silica Nanocomposite Films Derived from their Precursors Blends" Dr. Deepali Shrivastava.

Paper presented and published at international conference on language , literature and culture " A Forensic linguistic analysis of Pediatric medicine warning labels" Leena Potdar.

A Text Book of Applied Chemistry -I (Mumbai University syllabus), Second edition: 2017-2018, P. Jamnadas LLP, Mumbai. Dr. Biswajit Panda.

A Text Book of Applied Chemistry -II (Mumbai University syllabus), Second edition: 2017-2018, P. Jamnadas LLP, Mumbai. Dr. Biswajit Panda.

Editorial Board Member of A.R. Research Publications & Conference World (2017 - till date). Dr. Biswajit Panda.

Reviewer of Journal of the Chinese Advanced Materials Society. Dr. Biswajit Panda.

Keynote Speaker and presented a paper entitled, ' A Global Overview of Ash generation and Utilization in comparison to India, held at BIT Mesra, Patna Campus 16-17th February 2018. Dr. Surabhi.

Presented a paper "Analytical approach to thermal stresses regarding internal moving point heat source” in an International conference on algebra ,Discrete Mathematics and Application ,Dec. 9-11, 2017. Kamini Chaudhari.

NPTEL Course:

NPTEL Online certificate from IIT Roorkee on Waste to Energy Conversion 'Elite' Duration (Feb-Mar 2018). Dr. Surabhi.

NPTEL Online Certification on Literary Theory And Literary Criticism conducted by IIT , Madras (Jan- March 2017) Rakhee Pillai.

NPTEL Online Certification on Differential equations for engineers conducted by IIT , Madras (July -oct 2017) Kamini Chaudhari.

NPTEL Online Certification on Differential equations for engineers conducted by IIT , Madras (July -oct 2017) Suvarna Gaikwad.

NPTEL Online certificate from IIT Roorkee on Polymer Composites 'Elite'(July-Sep 2017). Dr. Deepali Shrivastava.

NPTEL online certificate from IIT Kharagpur on Coordination Chemistry. 'Elite'(July-Oct 2017). Sonali Nikam.

NPTEL Online certificate from IIT Roorkee on Polymer Composites 'Elite'(July-Sep 2017). Dr. Manju Pillai.

NPTEL Online certificate from IIT Roorkee on Polymer Composites 'Elite'(July-Sep 2017).. Dr. Biswajit Panda. NPTEL Online Certification on Differential equations for engineers conducted by IIT , Madras (July -oct 2017). Dr. Anshu Murarka.

NPTEL Online Certification on Numerical Linear Algebra IIT , Madras (Jan -Apr 2018). Archana Ingole.

NPTEL- Online certification course on "Calculus of one real variable" Aug-Oct 2017, IIT Kanpur. Neethu. P

NPTEL- Online certification course on "Multivariable Calculus " Feb-Mar 2018, IIT Roorkee. Neethu. P